

Notice of Allowability

Application No.

10/786,229

Examiner

Zia R. Hashmi

Applicant(s)

HARTLEY, FRANK T.

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/26/2004.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ The drawings filed on 26 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-17 are allowed.
2. The following is an examiner's statement of reasons for allowance:
3. With respect to independent claims 1, 6, 9, 16, and 17, prior art fails to disclose methods or apparatus pertaining to an ionization device for generating ions and electrons having: an insulating element having at least one opening, a first conductive electrode extending on a first surface of the insulating element in or near the at least one opening; a second conductive electrode extending on a second surface of the insulating element, in or near the at least one opening; and wherein the insulating element separates first and second conductive electrodes at the at least one opening by a width of the insulating element which is less than the mean-free-path of molecules being ionized. Prior art also fails to disclose an electron or ion delivery system coupled to the ionization device for receiving electrons or ions for delivery to a chosen device.
4. With respect to independent claims 10 and 14, prior art also fails to disclose method comprising the steps of: producing an ionization device, further comprising the steps of: providing an insulating element having at least one opening; extending a first conductive electrode on a first surface of said insulating element in or near the at least one opening; extending a second conductive electrode on a second surface of said insulating element in or near the at least one opening, separating said first and second

conductive electrodes with the insulating element at the at least one opening;
separating said first and second conductive electrodes by a width of said insulating element, making said width of insulating element equal to or less than the mean free path at ambient temperature and pressure of material being ionized applying a potential across the first and second conductive electrodes to generate ionization fields to generate ions and electrons. Prior art also fails to disclose an electron or ion delivery system coupled to the ionization device for receiving electrons or ions for delivery to a chosen device.

Claims 2-5, 7-8, 11-13, and 15 are allowed by virtue of their dependencies on the independent claims 1, 6, 9, 10, and 14.

Conclusion

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments of Statement of Reasons for Allowance".

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact Electronic Business Center (EBC) at 866-217-9197 (toll-free).

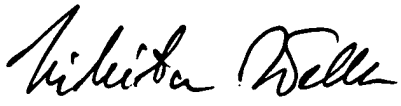
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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zia Hashmi whose telephone number is (571) 272-2473.

The examiner can normally be reached between 8.30 AM- 5 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477.

Zia Hashmi

December 9, 2004.


NIKITA WELLS
PRIMARY EXAMINER 12/10/04